

Application No. 10/605,112
Filed: September 9, 2003
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Examiner: Minh A
Art Unit: 2821

Remarks

Claims 1-12 remain in the application without amendment. Applicant respectfully requests further examination and consideration in light of the following remarks.

Rejections under 35 U.S.C. § 112

Claims 1-5 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite. The rejection is respectfully traversed.

The Examiner asserts that the phrase "wherein the cowling houses at least two antennas resonant in different frequencies" renders claim 1 indefinite because it is unclear whether the limitations following the phrase are part of the invention. Applicants respectfully do not understand the rejection because there are no limitations following the phrase. The limitations of claims 2-5 are all clearly shown in Figs. 2 and 3 of the application. Each antenna assembly houses at least two antennas and each antenna resonates at a different frequency. In the illustrated embodiment, one of the two antennas is a multiband antenna that, alone, resonates at different frequencies, but that multiband antenna resonates at different frequencies than the second antenna (e.g., a GPS antenna in Fig. 2 or a monopole antenna in Fig. 3). It is believed that there is nothing indefinite about claim 1 or the dependent claims.

Rejections under 35 U.S.C. § 102

Claims 1-7 and 9-12 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication No. US2004/0004575 to Tietjen. The rejections are respectfully traversed.

It is noted that the filing date of the published application is December 31, 2002. Attached hereto is the declaration of an inventor, Paul E. Miller, pursuant to 37 C.F.R. §131, attesting to his conception of the claimed invention prior to the filing date of the Tietjen application, coupled with diligent reduction to practice by the filing of the priority application in the USPTO on May 8, 2003, shortly after the filing date of the Tietjen application.

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Consequently, the cited Tietjen application is not prior art to the claimed invention, and the rejections must fall.

Moreover, even if the Tietjen publication were considered to be prior art to the claimed invention, it does not anticipate the claims. The Tietjen publication discloses one or more radar arrays 112 in a wheel 114 that rotates on a platform 150. The entire assembly is covered by a radome 102. The Examiner's references to Tietjen and the present application are not clear. For example, the Examiner refers to a contoured antenna assembly (110 or 110') having a cowling (unnumbered) and a base plate (platform 150). According to the Examiner, the cowling houses (150) at least two antennas (unnumbered) in different frequencies.

In fact, Tietjen discloses at most two radar arrays (112 or 112') in wheels (114 or 114') that rotate on a platform 150, all within a radome 102. Each radar array 112 is in a contoured housing (unnumbered), but nothing teaches or suggests more than one antenna in each radar array, each antenna being resonant at a different frequency. One might construe the radome 102 as a cowling and the platform 150 as a base plate, with each radar array (112, 112') construed as an antenna. This makes more sense, given the disclosure of each array assembly 110, 110' having a different frequency (Tietjen, para. 109). But such construction means that the entire assembly (3800 in Fig. 38) must be read as the contoured antenna assembly. But if so, the radome 102 of Tietjen is not contoured in the sense Applicants mean the term. "Contoured", here, means that the antenna assembly is shaped aesthetically to have a pleasing or conforming appearance to the marine vessel to which it is mounted. Hence, the illustrated embodiments, for example, show an aerodynamic, raked configuration, and not the unaesthetic, conventional hemispherical dome of Tietjen.

Regarding claim 2, Tietjen discloses two radar arrays (112, 112') that appear to be identical, but the radar arrays (112, 112') cannot be construed as contoured antenna assemblies within the scope of the claims. They do not have the two antennas resonant at different frequencies. Nothing in Tietjen teaches or suggests two separate and identical radomes with multiple arrays in each.

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Regarding claim 3, the Examiner seems to construe the platform 150 as the cowling, contrary to claim 1 where the Examiner construed the platform as the base plate. It cannot be both and still anticipate the claim. Applicant intends the term "cowling" to mean something similar to a covering or housing, preferably removable, and preferably somewhat aerodynamically shaped (contoured). Nothing in Tietjen discloses anything like a cowling, and certainly the platform 150 is not a cowling.

Regarding claim 4, the only thing in Tietjen that arguably comes close to a cowling is the radome 102. Nothing in Tietjen shows a portion of the antenna extending from the radome.

Regarding claim 5, nothing in Tietjen discloses a multiband antenna.

A similar analysis applies to the Examiner's rejection of claims 6, 7, and 9-12. The radome 102 of Tietjen is the only disclosure that arguably fits Applicants' construction. It does not partially enclose more than one antenna (claim 7), it is not raked (claim 9), it is not elongated (claim 10), it has no antenna extending from it (claim 11), and it does not house a multiband antenna (claim 12).

Tietjen, even if considered prior art, does not anticipate claims 1-7 and 9-12.

Rejections under 35 U.S.C. § 103

Claim 8 stands rejected under 35 U.S.C. §103 (a) as being unpatentable over Tietjen. The rejection is respectfully traversed.

Tietjen is not prior art to this invention. See above.

Moreover, even if it were, the Examiner's assertions are inapposite. The Examiner takes official notice of the equivalency of the platform 150 and an arch. But claim 8 requires the mounting the mounting platform of the marine vessel to be an arch. The platform 150 of the radar system of Tietjen is intended to be mounted on something else (a support means – see Tietjen, para. 0065). For the Examiner's equivalency to make sense, the support means must be the arch of a marine vessel. But there is nothing to teach or suggest that Tietjen intends to mount the radar system on the arch of a marine vessel, much less mounting two identical systems on an arch.

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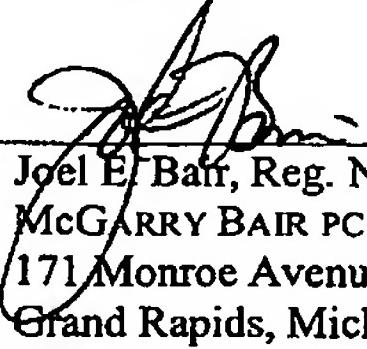
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Conclusion

In the absence of any other cited art, it is believed that the claims are allowable and early notice of Allowability is respectfully requested. Any questions concerning the foregoing may be directed to the undersigned at 616-742-3513 (jeb@mcgarrybair.com).

Respectfully submitted,
PAUL E. MILLER, ET AL.

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